

Percents!

Review Calculating Percent from a decimal or Fraction

$$\frac{14}{42} = 0.\overline{33}$$

$\nearrow \times 100 = 33.\overline{3}\%$

$\% \text{ to decimal} \mid \div 100$
 $\text{decimal to } \% \mid \times 100$

or

$$0.\overline{52} \xrightarrow{\text{move decimal 2}} = 52\%$$

double 90 = 90×2

$$52\% \xrightarrow{\text{move decimal 2 left}} = 0.52$$

What is 17% of 90?

$$\approx 17\% = 0.17$$

$$90 \times 0.17 = \underline{15.3}$$

$$15\% \text{ of } 110$$

$$15\% = 0.15$$

$$110 \times 0.15 = 16.5$$

Sales Tax

In Ontario we have a sales tax of 13 percent. This means that when you look at a price tag, you need to add 13 percent to that in order to know what you will actually pay...

What is our HST expressed as a decimal?

$$13\% = 0.13$$

To find the price with tax, we

$$\$108$$

$$\begin{aligned}\rightarrow \text{Tax} &= 108 \times 0.13 \\ &= 14.04\end{aligned}$$

$$\begin{aligned}\text{Total} &= 108 + 14.04 \\ &= 122.04\end{aligned}$$

Discounts - The opposite of tax:

For discounts, we take that percentage off!

30%
OFF

\$108

$$30\% = 0.30$$

$$\text{Discount} \left\{ 108 \times 0.30 = \$32.40 \right.$$

$$\$108 - \$32.40 = \$75.60$$

$$\text{Tax} \left\{ 13\% \text{ tax} = 0.13 \right.$$

$$75.60 \times 0.13 = 9.828$$

$$\approx 9.83$$

$$\text{Total} = 75.60 + 9.83$$

$$= 85.43$$

Both together!!!! Sounds crazy!

Commission: Commission is when a person gets paid based on how well they sell something. Real estate agents, and sometimes sales staff, get a percentage of the value they are able to sell as pay.

6% commission

= 300,000

$$6\% = 0.06$$

$$300\,000 \times 0.06 = \$18\,000$$

Homework:

Calculate the following:

12% of 200

18% of 134

20% of 1500

-13%

a) A hat (a big one) that I want to buy has a price of \$29.99. What will be the price after taxes are added?

b) I wait, and the hat is discounted by 30%. What will be the NEW price AFTER taxes?

c) The sales person gets a 5% commission on the BEFORE tax price. What is their commission?

with the discount